Two-way Set Associative Cache - 100

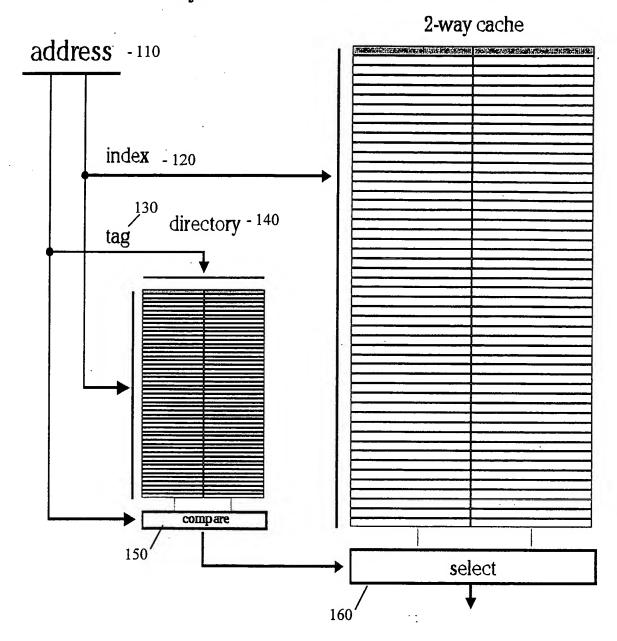


FIG. 1 PRIOR ART

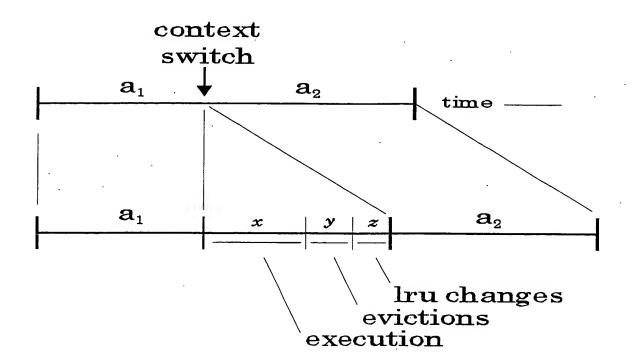


FIG. 2

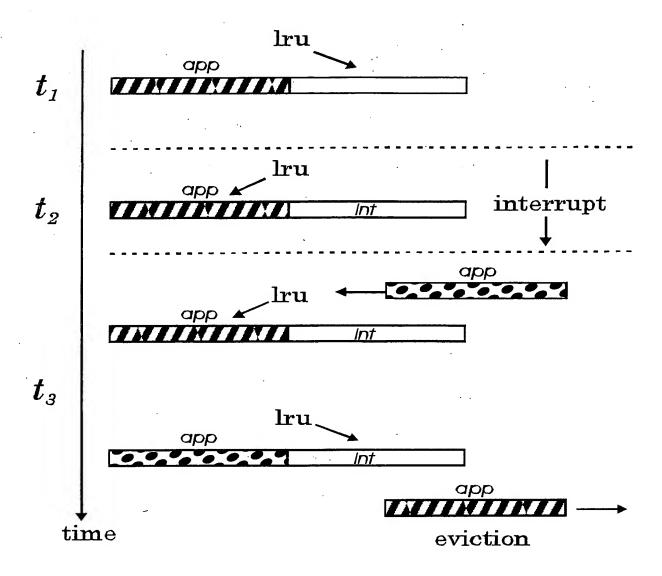
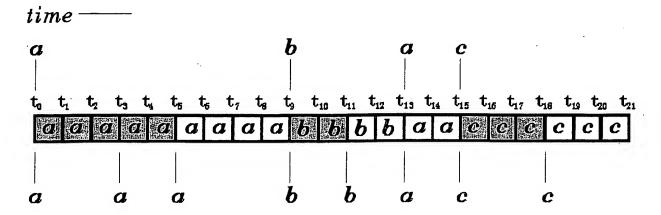


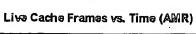
FIG. 3

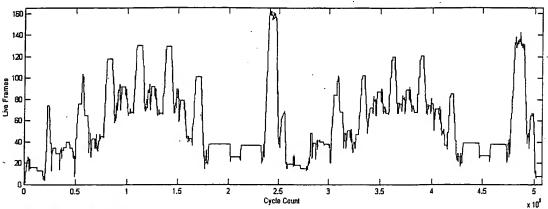
blocks inserted into frame



blocks accessed

FIG. 4





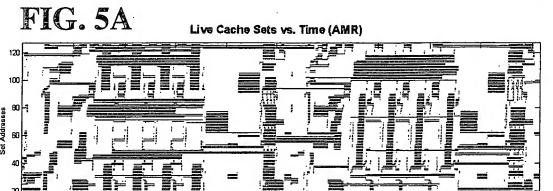


FIG. 5B

Sets containing a live frame at any time during an application's execution.

Sets occupied by an interrupt at any time during its execution.

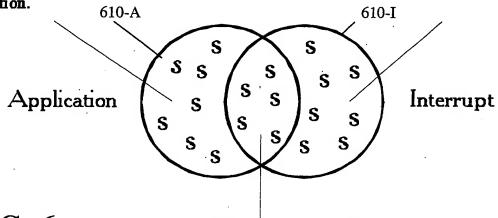


FIG. 6 Sets in the intersection may experience the eviction of a block from a live frame.

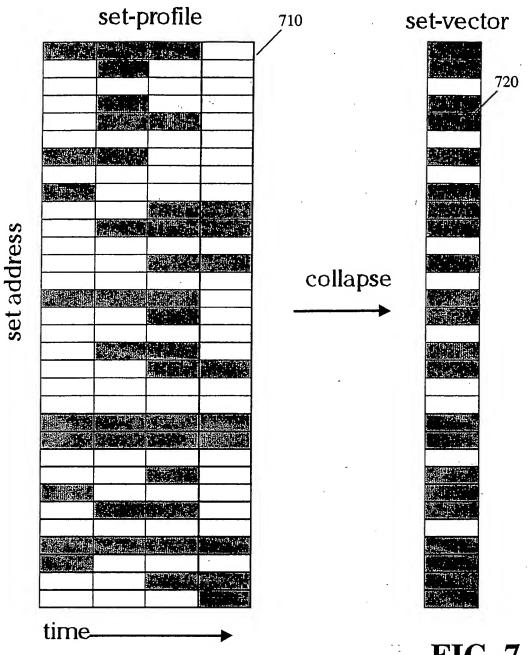
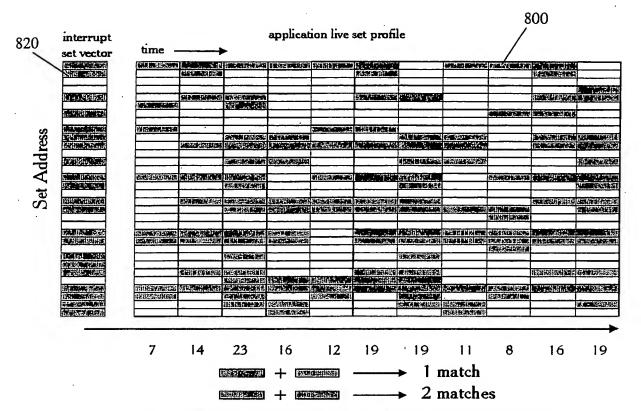


FIG. 7



Sweep the vector across the profile to find the maximum number of matches.

FIG. 8

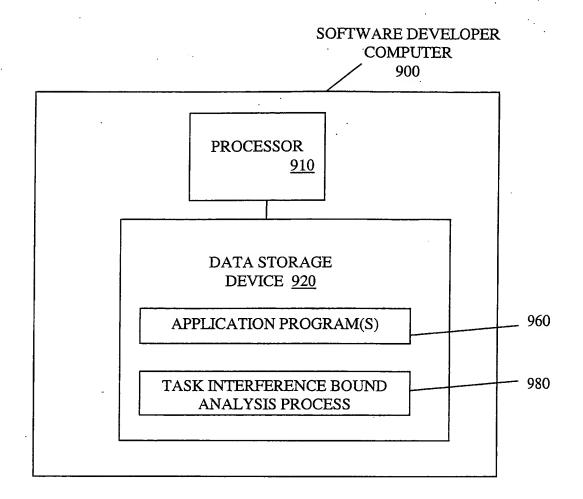


FIG. 9

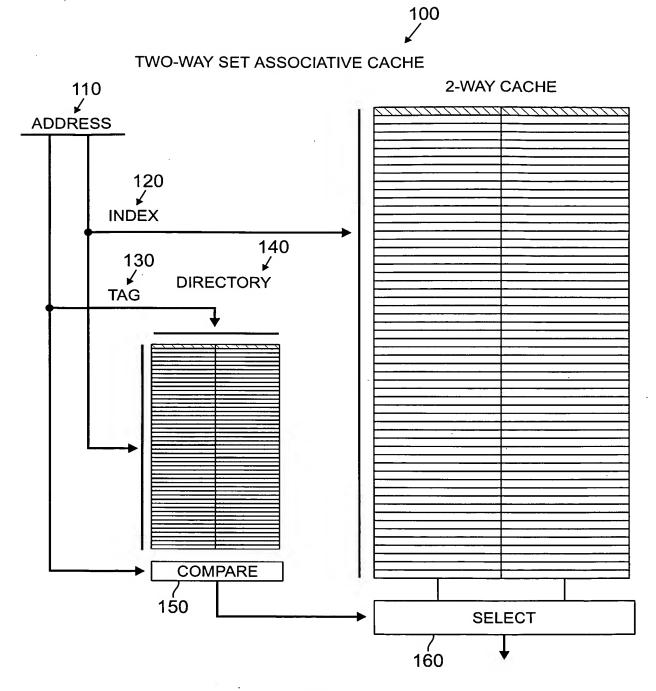
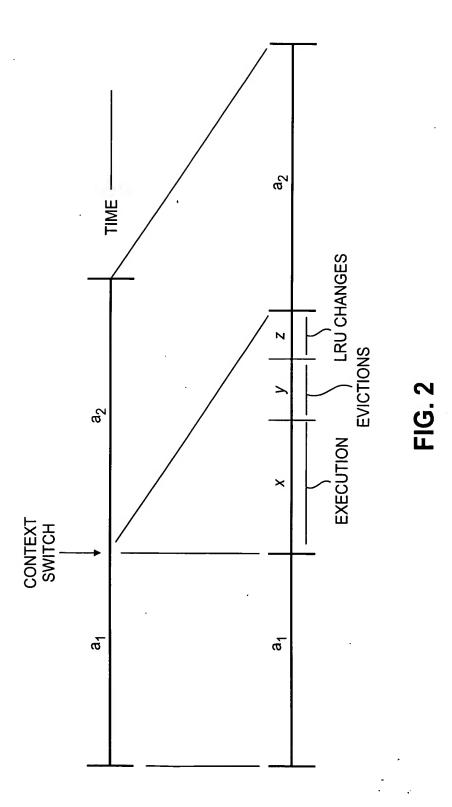


FIG. 1 (PRIOR ART)



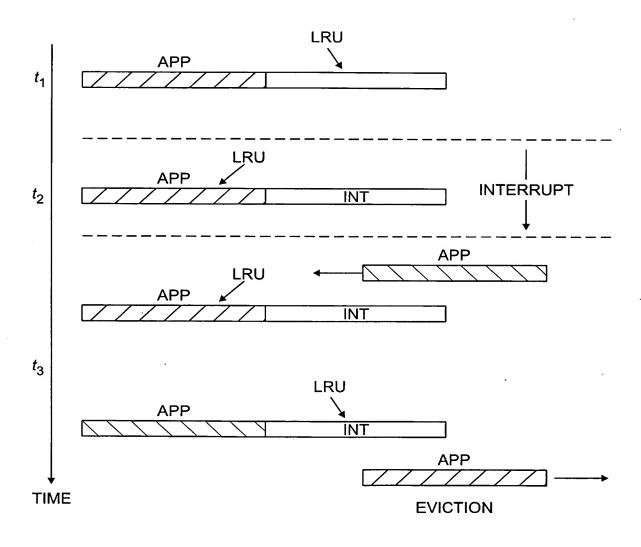


FIG. 3

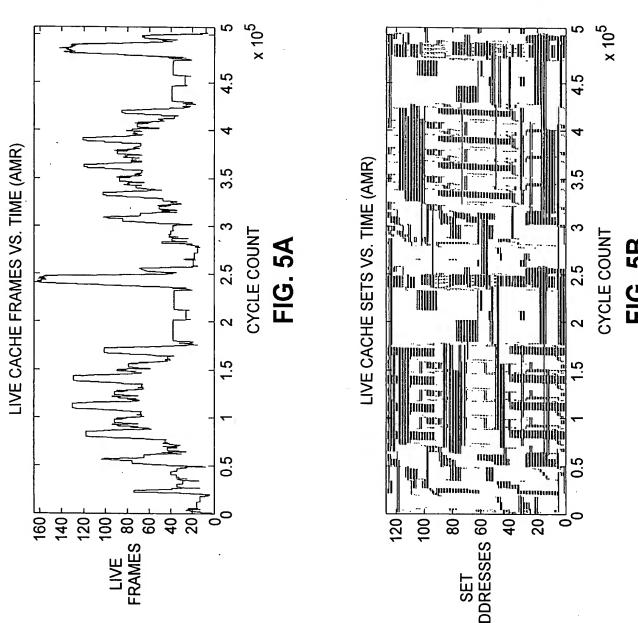


FIG. 5B

t21 ပ t18 t19 t20 ပ ပ t17 եր եր // // Ø t13 t14 **BLOCKS INSERTED INTO FRAME** 9 **BLOCKS ACCESSED** t₁₁ t₁₂ ر t_o Ø ھ Ø **t** a و. 5 t. 2 TIME

FIG. 4

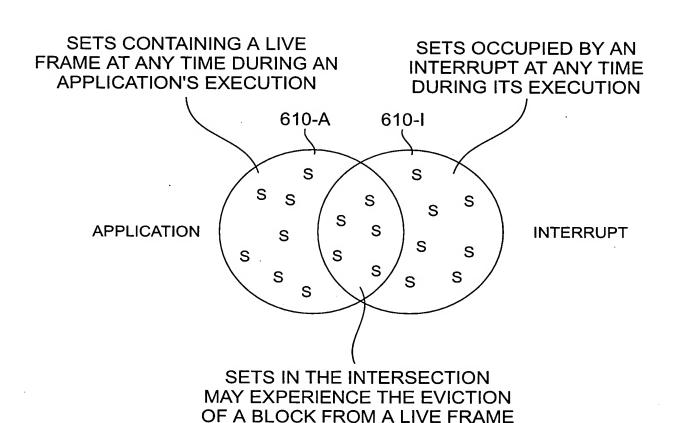


FIG. 6

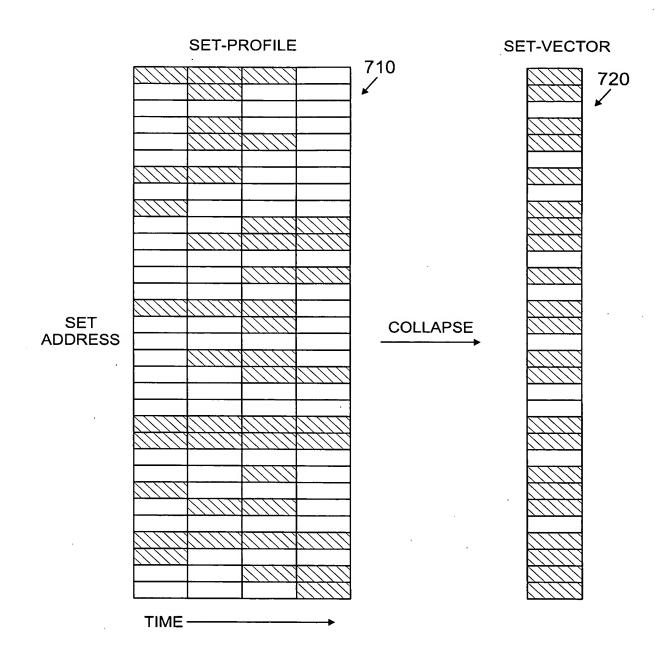
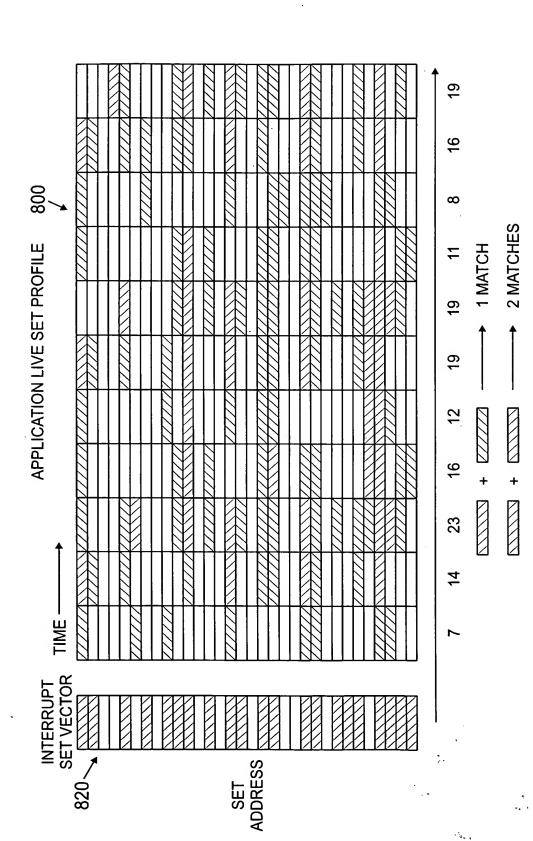


FIG. 7



SWEEP THE VECTOR ACROSS THE PROFILE TO FIND THE MAXIMUM NUMBER OF MATCHES

FIG. 8

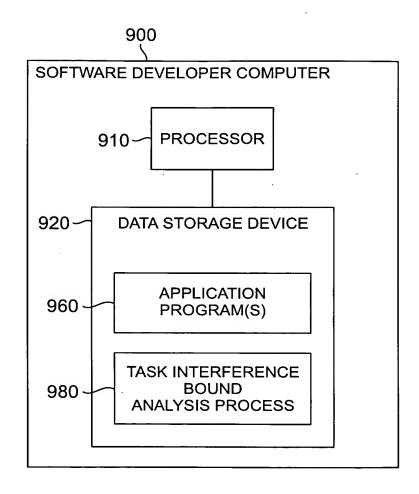


FIG. 9